

Application Data Sheet

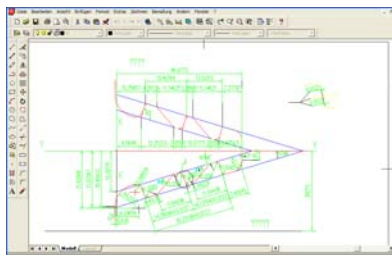
Christmas Tree Cutter



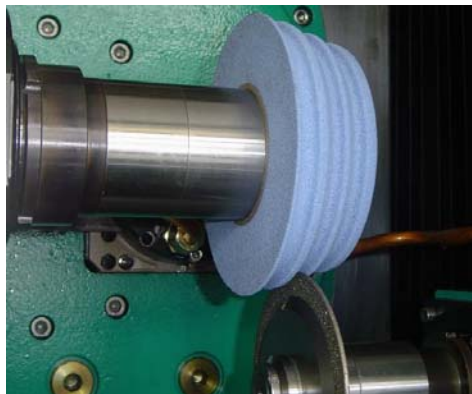
Christmas Tree are tools with very tight accuracies. No problem for our high precision grinding machines. There are two tips of Christmas Tree: Either with radial relieve or with clearance surface. Both can be produced or reshaped on Schneeberger Grinding machines.

Christmas Tree in production

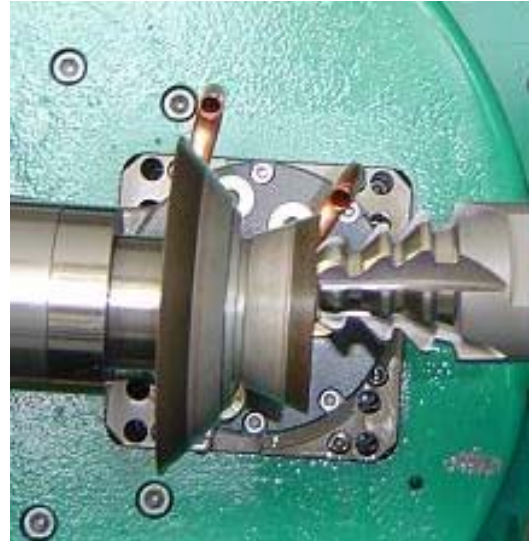
First Step: Transfer the Technical Details to Quinto Software and define all relevant parameters



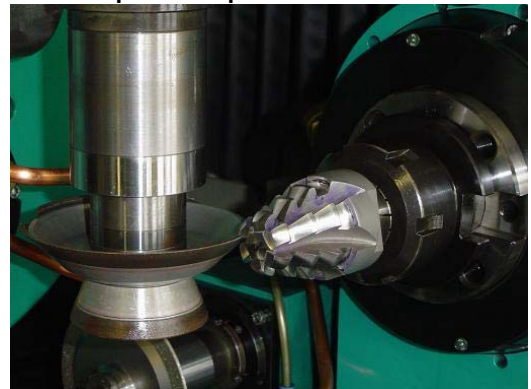
Second Step: Dressing the Wheel with a easy to use Software integrated in Quinto



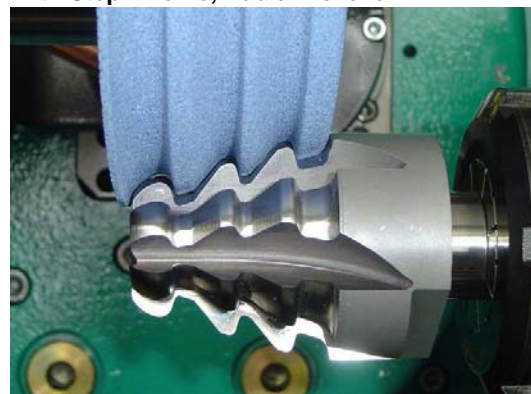
Third Step: End Operation



Forth Step: Flute Operation







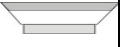
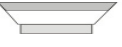

Fifth Step: Profile, Radial Relieve



Cycle time for production

Tool specification

Cutting edges: 6, Length cutting edge: 50mm, Helix angle: 0 deg and Material: HM

Operations		Flute 1 	Flute 2 	Face 	Profile Operation 1 Roughing I	Dressing Wheel	Profile Operation 2 Roughing II	Dressing Wheel	Profile Operation 3 Finish
Feed [mm/min]	2000	160	400	180	110		110		310
Power [kW]		2	2	1	1		1		1
Cutting speed [m/s]		30	30	30	30		30		30
Wheels					Corundum Wheel		Corundum Wheel		Corundum Wheel
Grinding time [s]	23	240	120	180	420	365	420	365	180
TOTAL Grinding Time [s]	38 Min 33s								

The above cycle times are indicative. The material to be ground, other grinding wheels and other coolants can influence the cycle times considerably.

Machine and Software Requirements

Machines: 5 axes CNC grinders: CORVUS GDS with 15kW or 26kW Spindle power

Control: Fanuc 160i

Coolant: Water soluble, pressure 6 – 7 bar

Software: Quinto NT

www.schneeberger.ch

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